

REMARKS

Claims 13-25 are pending in this application. Claim 13 is the sole independent claim. Claims 1-12 were previously cancelled. Reconsideration and allowance of the present application are respectfully requested.

Applicant appreciates the Examiner's acknowledgement and consideration of the drawings filed February 7, 2006.

Applicant appreciates the Examiner's acknowledgement and receipt of the certified priority documents.

Rejections under 35 U.S.C. §103 – Halstrom in view of Toone

Claims 13-14, 17, and 21-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,868,138 ("Halstrom") in view of U.S. Patent 4,901,737 ("Toone"). This rejection is respectfully traversed.

With regard to independent claim 13, the Examiner asserts that Halstrom discloses all of the claim limitations with the exception that Halstrom does not disclose the adjustable connection means comprising a horizontal adjusting screw for forward/backward adjustment of the one shaped part relative to the other, the screw being connected by means of a connecting piece with the adjustable connection means for the upward/downward adjustment. The Examiner asserts that Toone teaches these missing limitations. Applicant asserts that neither Halstrom, nor Toone, either singly or in combination with each other, teach or suggest "the adjustable connection means comprise a horizontal adjusting screw for forward/backward adjustment of the one shaped part relative to the other," as recited in claim 13. Furthermore, Applicant

asserts that a person of ordinary skill in the art would not be motivated to combine Halstrom and Toone in the manner asserted by the Examiner.

With regard to the Halstrom patent, Applicant draws the Examiner's attention to at least FIGS. 3 and 7 which disclose stylus 46, one end of stylus 46 being able to screw into aperture 68 on the maxillary portion of the dental appliance and the other end of stylus 46 fitting through aperture 52 of guide box 50 to anchor the mandible portion of the dental appliance via stylus head 48. It should be noted that stylus 46 may shift laterally within aperture 52, in turn allowing the mandible portion of the dental appliance to move laterally with respect to the maxillary portion. Applicant asserts, and the Examiner appears to agree, that Halstrom does not teach or suggest a "horizontal adjusting screw," as recited in claim 13, as Halstrom only discloses screwing stylus 46 into one of a number of apertures 68 located in the maxillary portion to provide forward/backward adjustment of the mandible portion of the dental appliance.

Applicant asserts that a review of Toone indicates that Toone does not remedy the deficiencies of Halstrom. Applicant draws the Examiner's attention to FIGS. 9A and 9B of Toone which disclose a dental appliance with a threaded adjustment rod 50 (the Examiner's asserted "horizontal adjusting screw") which is received in threaded bore 52 to simultaneously adjust both the inferior and anterior position of the mandible portion of the dental appliance, as described in column 10, lines 30-66. In column 10, lines 47-51, Toone explains the importance of this simultaneous adjustment (i.e., the importance of causing adjustment rod 50 to simultaneously adjust the mandible portion forward/backward and upward/downward), as adjustment rod 50 ensures that the anterior/inferior position of the mandible portion

remains at a ratio of 1/5 throughout the full range of adjustments for the device. Therefore, Applicant asserts that Toone does not disclose a “horizontal adjusting screw for forward/backward adjustment of the one shaped part relative to the other end,” as recited in claim 13, as Toone instead discloses an adjustment rod 50 that simultaneously adjusts the mandible portion upward/downward and forward/backward. For at least these reasons, Applicant asserts that neither Halstrom, nor Toone, either singly or in combination with each other, teach or suggest “the adjustable connection means comprise a horizontal adjusting screw for forward/backward adjustment of the one shaped part relative to the other,” as recited in claim 13.

Furthermore, Applicant asserts that a person of ordinary skill in the art would not be motivated to combine adjustment rod 50 of Toone with Halstrom. Applicant draws the Examiner’s attention to column 1, line 63 through column 2, line 12 of Halstrom which discusses the Toone patent. Specifically, column 2, lines 8-12 of Halstrom discloses Toone’s “alternative embodiment,” referencing FIGS. 9A and 9B and the “threaded rod” 50 of Toone. Applicant submits that the threaded rod 50 of Toone was clearly contemplated by Halstrom, and yet Halstrom did not find a benefit in incorporating a similar threaded rod 50 into any of the Halstrom embodiments. Applicant asserts that a person of ordinary skill in the art, viewing both Halstrom and Toone, would likely view Toone’s threaded adjustment rod 50 as an alternative to Halstrom’s stylus 46. This is because Halstrom’s stylus 46 offers both inferior and anterior positioning of the mandible portion (similar to Toone), but Halstrom also includes the advantage of providing lateral movement of the mandible portion (i.e., stylus 46 is able to shift within aperture 52) which is included in Toone. Applicant

asserts that because adjustment rod 50 of Toone is limited to simultaneous forward/backward and upward/downward adjustment, without the benefit of lateral movement of the mandible, a person of ordinary skill in the art would likely not be motivated to incorporate adjustment rod 50 into Halstrom in the manner asserted by the Examiner.

With regard to dependent claim 18, the Examiner asserts that Halstrom's stylus 46 discloses a "vertical adjusting screw with double screw thread." Applicant asserts that neither Halstrom, nor Toone, either singly or in combination with each other, teach or suggest an adjusting screw that "co-acts on one outer end with a first threaded bore connected via a connecting piece to the slide element, and which co-acts on its other outer end with a second threaded bore provided on the front side of the other shaped part," as recited in claim 18. Applicant submits that FIG. 3 of Halstrom shows one end of stylus 46 engaging with a threaded bore (aperture 68), and the other end of stylus 46 having a head 48 that simply acts as an anchor to be located in cavity 54 of guide box 50. Therefore, Applicant asserts that Halstrom does not teach an adjusting screw that co-acts with threaded bores on both ends of the "adjusting screw." Applicant asserts that Toone does not remedy this deficiency of Halstrom. For at least these reasons, Applicant asserts that neither Halstrom, nor Toone, either singly or in combination with each other, teach or suggest an adjusting screw that "co-acts on one outer end with a first threaded bore connected via a connecting piece to the slide element, and which co-acts on its other outer end with a second threaded bore provided on the front side of the other shaped part," as recited in claim 18.

With regard to dependent claim 23, Applicant asserts that neither Toone nor Halstrom teach or suggest "wherein the threaded passage is provided in the slide

element,” as recited in claim 23. Applicant asserts that the Examiner has identified the “slide element” of claim 13 as stylus head 48 of Halstrom, and the Examiner has identified the “slide element” of claim 23 (the same “slide element” which is recited in claim 13) as hex recess 53 of Toone. Applicant asserts that reference number 53 (shown in FIG. 9A) of Toone is not in any way a “slide element which is slidable laterally to a limited extent along a guide element,” as recited in independent claim 13, and therefore the Examiner cannot properly rely on reference number 53 as a “slide element.” Furthermore, Applicant asserts that Halstrom does not disclose a “threaded passage” that is otherwise provided in the asserted “slide element” 48 (shown in FIG. 3) of Halstrom. For at least this reason, Applicants asserts that neither Halstrom, nor Toone, either singly or in combination with each other, teach or suggest “wherein the threaded passage is provided in the slide element,” as recited in claim 23.

Also with regard to both claims 22 and claim 23, Applicant asserts that neither Halstrom nor Toone teach or suggest “wherein the horizontal adjusting screw... co-acts on one outer end with a threaded passage,” as recited in claim 22, and “the horizontal adjusting screw is provided on its other outer end with a screw end, the connecting piece being provided with a horizontally oriented hole through which the horizontal adjusting screw extends,” as recited in claim 23. Applicant draws the Examiner’s attention to the adjustment rod 50 of FIG. 9A of Toone which shows one end of rod 50 engaging threaded bore 52 and the other end of rod 50 pressing against shoulder 18. Applicant asserts that adjustment rod 50 does not have the ability to engage threaded connections on both of its ends, and for at least this reason Applicant asserts that neither Halstrom, nor Toone, either singly or in combination with each other, teach or suggest all of the limitations of claims 22 and 23.

With regard to dependent claim 24, Applicant asserts that neither Halstrom, nor Toone, teach or suggest “wherein the slide element is provided with a horizontally oriented hole through which the horizontal adjusting screw extends,” as recited in claim 24. Again, Applicant submits that the Examiner has asserted that both stylus head 48 of Halstrom and hex recess 53 of Toone disclose a “slide element,” as recited in claims 13 and 24. Applicant asserts that it is improper for the Examiner to rely on two different elements, disclosed in two different references, for the same one recited element (i.e., the recited “slide element” is the same element for both claim 13 and claim 24). Applicant asserts that hex recess 53 of Toone is in no way a “slide element which is slidable laterally to a limited extent along a guide element,” as recited in claim 13, and stylus head 48 of Halstrom does not disclose a “horizontally oriented hole through which the horizontal adjusting screw extends,” as recited in claim 24. For at least this reason, Applicant asserts that neither Halstrom, nor Toone, either singly or in combination with each other, teach or suggest “wherein the slide element is provided with a horizontally oriented hole through which the horizontal adjusting screw extends,” as recited in claim 24.

For at least the reasons stated above related to independent claim 13, and dependent claims 18, 22, 23, and 24, Applicant asserts that these claims are patentable. Due at least to the dependence of claims 14, 17, 21, and 25 on independent claim 13, Applicant also asserts that these claims are patentable. Therefore, Applicant respectfully requests that this art ground of rejection of these claims under 35 U.S.C. §103 be withdrawn.

Rejections under 35 U.S.C. §103 – Halstrom in view of Toone and further in view of Lowe

Claims 15-16 and 19-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Halstrom in view of Toone and further in view of U.S. Patent 5,409,017 (“Lowe”). This rejection is respectfully traversed.

With regard to independent claim 13, Applicant asserts that claim 13 is patentable over Halstrom in view of Toone for at least the reasons stated above. Applicant asserts that a review of Lowe indicates that Lowe does not remedy the deficiencies of Halstrom in view of Toone. Specifically, Applicant asserts that neither Halstrom, nor Toone, nor Lowe, either singly or in combination with each other, teach or suggest “the adjustable connection means comprise a horizontal adjusting screw for forward/backward adjustment of the one shaped part relative to the other,” as recited in claim 13.

With regard to dependent claim 15, the Examiner asserts that the combination of Halstrom in view of Toone discloses base claim 13 along with recited claim 15, with the exception that Halstrom in view of Toone does not disclose the guide element as being a rod mounted between two points of the one shaped part, the slide element being a hollow tube slidable around the rod. The Examiner asserts that Lowe discloses this limitation. Applicant asserts that neither Halstrom, nor Toone, nor Lowe, either singly or in combination with each other, teach or suggest “wherein the guide element is a rod mounted between two points of the one shaped part, and the slide element is a hollow tube slidable around this rod,” as recited in claim 15. Applicant asserts that the Examiner’s asserted “rod” 54/56 is not “mounted between two points of the one shaped part,” as recited in claim 15. Rather, “rods” 54/56 are

two separate rods running parallel to each other. Furthermore, the asserted “slide element” 58/60 of Lowe is not a slide element “which is slidable laterally to a limited extent along a guide element,” as recited in base claim 13. Applicant asserts that “slide element” 58/56 of Lower allows for upward/downward and forward/backward movement, but not lateral movement. For at least this reason, Applicant asserts that the Examiner’s asserted combination of Halstrom in view of Toone and further in view of Lowe does not teach or suggest all of the limitations of claim 15.

With regard to dependent claim 16, Applicant asserts that neither Halstrom, nor Toone, nor Lowe, either singly or in combination with each other, teach or suggest “wherein the length of the hollow tube is chosen as a function of the desired maximum lateral displacement,” as recited in claim 16. Applicant asserts that the Examiner’s asserted “hollow tubes” 58/56 are only used for upward/downward and forward/backward movement, and not “lateral displacement,” as recited in claim 16. As described in column 4, lines 48-52 of Lowe, U-shaped connectors 50/52 (and not “hollow tubes” 58/56) are instead used for lateral movement. Applicant therefore asserts that the Examiner’s asserts combination of Halstrom in view of Toone and further in view of Lowe does not teach or suggest all of the limitations of claim 16.

For at least the reasons stated above related to independent claim 13 and dependent claims 15 and 16, Applicant asserts that these claims are patentable. Due at least to the dependence of claims 19 and 20 on claim 13, Applicant also asserts that these claims are patentable. Therefore, Applicant respectfully requests that this art ground of rejection of these claims under 35 U.S.C. §103 be withdrawn.

CONCLUSION

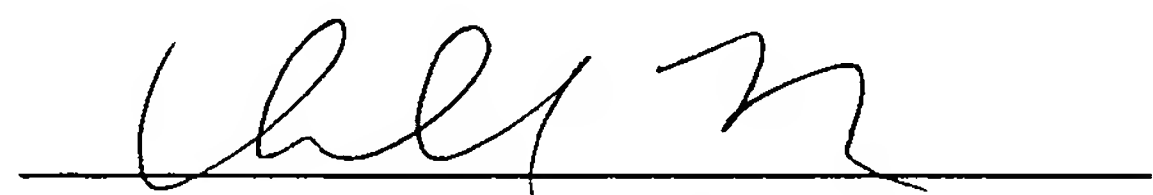
In view of the above remarks and amendments, Applicant respectfully submits that each of the rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below..

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
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